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Op-Eds

This ad appeared in The New York Times April 6, 2000.

The Path Forward on Climate Change

Climate change may appear as confusing as a maze -- especially considering the economic and social consequences of climate policy proposals, the gaps in scientific understanding and the promise of future technology.

A responsible path forward must be marked by rational scientific, economic and technical analysis. And it must include actions now on several fronts:

- Continued research to understand the climate system
- Cost-benefit analyses of proposed responses
- Removal of regulatory and tax restrictions that hamper introduction of new technology and present barriers to its widespread application
- Promotion of energy efficiency.

Universities, industry, national laboratories and consumers can each contribute to this process.

The role of government should be to support and encourage research on climate science and private investment in technology, rather than to target programs that support particular views. In all cases, we must recognize the importance of eliminating regulations and other barriers that inhibit commercialization of cost-effective technologies.

All citizens have a right to know the consequences of suggested governmental policies. Proposals to address climate change issues must first be analyzed to assess their costs and benefits to society. Policy mistakes can be serious and may even limit our ability to respond effectively later.

Technologies such as fuel cells, hybrid (gasoline and electric) cars and advanced diesel vehicles and fuels all hold promise for transportation. Although battery technology appears to require major breakthroughs, sources such as solar, wind and biomass can satisfy some limited needs now, and possibly more later. Further in the future, hydrogen may play a role in nearly pollution-free power, but this technology faces enormous challenges.

Other research seeks ways to capture and store carbon dioxide emitted during the use of fossil fuels. Even less-conventional options, such as marine fertilization to absorb carbon dioxide, should be examined.

Successful companies have long recognized the importance of lowering costs. Reduced energy use helps meet this goal and lowers emissions, too. Recently, the U.S. Department of Energy announced that reductions by companies that voluntarily report their results tripled between 1994 and 1998. Private industry has also begun to share information on best industrial operating practices and to promote joint research on efficiency steps.

As gaps in climate science are being filled, these approaches can lead to real changes in

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emissions trends without harming economies and lifestyles. At ExxonMobil, we endorse these steps and conduct our own research and operations in ways that support them. We believe it's the responsible path forward.

For a more-detailed Global Climate Change brochure, write ExxonMobil, Dept. E, 5959 Las Colinas Blvd., Irving, TX 75039-2298.

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Op-Eds

This ad appeared in The New York Times March 23, 2000.

Unsettled Science

Knowing that weather forecasts are reliable for a few days at best, we should recognize the enormous challenge facing scientists seeking to predict climate change and its impact over the next century. In spite of everyone's desire for clear answers, it is not surprising that fundamental gaps in knowledge leave scientists unable to make reliable predictions about future changes.

A recent report from the National Research Council (NRC) raises important issues, including three still-unanswered questions:

- (1) Has human activity already begun to change temperature and the climate, and
- (2) How significant will future change be?

The NRC report confirms that Earth's surface temperature has risen by about 1 degree Fahrenheit over the past 150 years. Some use this result to claim that humans are causing global warming; and they point to storms or floods to say that dangerous impacts are already under way. Yet scientists remain unable to confirm either contention.

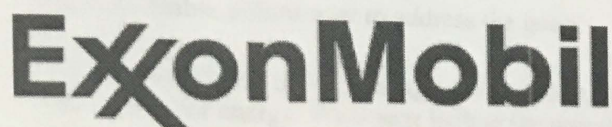
Geological evidence indicates that climate and greenhouse gas levels experienced significant natural variability for reasons having nothing to do with human activity. Historical records and current scientific evidence show that Europe and North America experienced a medieval warm period one thousand years ago, followed centuries later by a little ice age. The geological record shows even larger changes throughout Earth's history. Against this backdrop of large, nearly unexplained natural variability, it is impossible for scientists to attribute the minor, small surface temperature increase to human causes.

Moreover, computer models relied upon by climate scientists predict that lower atmospheric temperatures will rise as fast as or faster than temperatures at the surface. However, only within the last 20 years have reliable global measurements of temperatures in the lower atmosphere been available through the use of satellite technology. These measurements show little if any warming.

Even less is known about the potential positive or negative impacts of climate change. In fact, many scientific studies and field experts both have demonstrated that increased levels of carbon dioxide can promote crop and forest growth.

So, while many argue that the scientific debate is settled and governments should focus only on reduction policies - that is simply incorrect. Inevitably, future scientific research will help us understand much more about natural climate change than affects the world and will help us determine the appropriate way to address the long-term.

However, because of the significant uncertainties about the climate change, any policy that would require nations and individuals to alter the way they live or operate should be based on a careful and balanced assessment of the risks and benefits. Continued research and development should



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Moreover, computer models relied upon by climate scientists predict that lower atmospheric temperatures will rise as fast as or faster than temperatures at the surface. However, only within the last 20 years have reliable global measurements of temperatures in the lower atmosphere been available through the use of satellite technology. These measurements show little if any warming.

Even less is known about the potential positive or negative impacts of climate change. In fact, many academic studies and field experiments have demonstrated that increased levels of carbon dioxide can promote crop and forest growth.

So, while some argue that the science debate is settled and governments should focus only on near-term policies -- that is empty rhetoric. Inevitably, future scientific research will help us understand how human actions and natural climate change may affect the world and will help determine what actions may be desirable to address the long-term.

Science has given us enough information to know that climate changes may pose long-term risks. Natural variability and human activity may lead to climate change that could be significant and perhaps both positive and negative. Consequently, people, companies and governments should

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take responsible actions now to address the issue.

One essential step is to encourage development of lower-emission technologies to meet our future needs for energy. We'll next look at the promise of technology and what is being done today.

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Op-Eds

This ad appeared in The New York Times March 23, 2004.

The Promise of Technology

One of the original hopes in the climate-change debate has to be the benefits to be achieved through technology. For a world that has conquered polio and put a man on the moon, that's an empty promise. Modern technology makes it possible for many to enjoy a way of life far beyond the dreams of previous generations. Engineering ability and entrepreneurial vision give us confidence that technological progress will accelerate through the 21st century. Future advances are likely to meet individual expectations for greater prosperity and also the environmental and social challenges we face.

Many respected scientists conclude that research to develop new technology offers the most effective near-term means to address the long-term response to climate change. Universities, universities and government laboratories are studying technologies that offer the possibility of supplying and utilizing energy with far lower emissions. Later this year, for example, the Business Roundtable, an association of over 160 of the largest U.S. companies, will host a national summit focusing on such technology.

Energy companies are working with large automobile manufacturers on fuel-cell-powered vehicles, hybrid (gasoline plus electric) cars, and systems for advanced fuels and vehicles. Other opportunities include more-efficient power generation, renewable and alternative energy, and methods to separate and dispose of greenhouse gas emissions during fossil fuel combustion. Many companies work continuously on programs to improve energy efficiency in manufacturing and to supply more-efficient products to their customers.

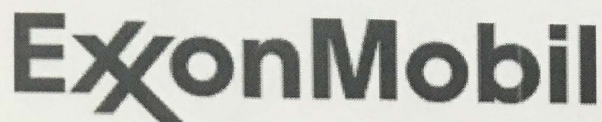
Although the potential of technology is significant, everyone offering solutions to environmental challenges should bear two cautions in mind.

First, research is promising progress, but it is slow and uncertain. The pace of progress is uncertain. It also faces many barriers, including efficiency, effectiveness, safety and environmental impacts, among others. In short, research - and particularly - will be costly and time-consuming.

Second, new technology requires time to develop and deploy. Companies, even with a technology portfolio, can't wait until the technology is ready to use to address environmental challenges. In addition, some challenges are technological, but not in the sense of a technical problem. A solution may require high-level political and social decisions. To address global environmental challenges, we must be able to act quickly.

Climate change poses a global challenge that will only be met if all countries develop and implement a comprehensive, coordinated response. The world is not a collection of nations, but a single community. We must work together to address the global challenges we face. The only way to ensure a sustainable future for all is to work together to address the global challenges we face.

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The Promise of Technology

One of the brighter hopes in the climate change debate has to be the benefits to be achieved through technology. For a world that has conquered polio and put a man on the moon, that's no empty promise. Modern technology makes it possible for many to enjoy a way of life far beyond the dreams of previous generations. Engineering ability and entrepreneurial vision give us confidence that technological progress will accelerate through the 21st century. Future advances are likely to meet individual expectations for greater prosperity and also the environmental and social challenges we face.

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Although the potential of technology is significant, everyone offering solutions to environmental challenges should bear two cautions in mind.

First, research on promising projects does not always succeed commercially. For consumers to accept new technology, it must meet many demands, including affordability, performance, safety and environmental impacts, among others. In short, markets -- not politicians -- will inevitably decide which products are successful.

Second, new technology requires time to develop and deploy. Consequently, even when a technology proves that it can work and is cost-effective, it may take years for its use to become widespread. Moreover, to address climate change, new technologies must spread over the entire globe. We cannot pursue high-cost options just for the developed world. To affect global emissions, technology must be affordable everywhere.

Climate change may pose legitimate long-term risks. As one of the world's leading science and technology organizations, ExxonMobil is confident that technology will reduce the potential risks posed by climate change. But we also know it takes time to discover, develop and deploy affordable technologies for world markets. That's why we're working on long-term solutions now.

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Op-Eds

Energy

This ad appeared in The New York Times March 16, 2000.

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Do No Harm

Op-Eds

Just as divergent as your local weather forecast, views on the climate change debate range from seeing the issue as trivial to critical, and from seeing the possible future impacts as harmful or beneficial.

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Some in the debate believe they can predict changes in climate decades from now. Advancing "precaution" and demanding scientific certainty, they believe action should be taken immediately to reduce carbon dioxide emissions by mandating severe restrictions on energy use.

Climate
Policy

Though we wholly support the efficient use of fuel, a prudent approach to the climate issue must recognize that there is not enough information to justify burning resources and forcing the world's population to embrace unwarranted lifestyle changes by drastically reducing the use of energy now.

Energy
Industry

Energy

Enough is known about climate change to recognize it may pose a legitimate long-term risk, and that more needs to be learned about it. Many scientists and economists believe that it is inappropriate to impose costly policies such as the Kyoto Protocol - the result of a 1997 negotiation by governments to reduce greenhouse gas emissions only in certain countries.

Climate

News
Center

In the United States, the Department of Energy has estimated that the Kyoto Protocol would require a dramatic (30 percent) near-term reduction in the projected use of energy. Most economists tell us that such a step would change our economy and almost certainly require large increases in taxes on gas and oil. It could also entail enormous transfers of wealth to other countries.

Even if it were implemented, the Protocol would not accomplish what it is supposed to do - reduce the global buildup of greenhouse gases. Why? Because the Kyoto Protocol does not restrict emissions in developing countries. Those countries, which are growing rapidly, desperately need energy to improve the welfare of their people. They have not agreed to limit their energy use and could not do so without hindering growth.

Moreover, for most nations the Kyoto Protocol would require extensive diversion of human and financial resources away from such immediate and pressing needs as health care, education, infrastructure, and, yes, the environment - all critical to the well-being of future generations.

We support and are undertaking feasible and affordable ways to voluntarily use less energy, water. In addition, we propose an approach that emphasizes a strong focus on scientific understanding, carefully evaluates the costs and benefits of policies, and promotes research and development of technical options that have the potential to make significant long-term reductions in emissions if they are needed. Over the next few weeks, we'll discuss these proposals in much detail.

Although it is hard to predict what the weather is going to be this weekend, we know with certainty that climate change is a real concern. We should, we believe, act wisely.

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Though we wholly support the efficient use of fuel, a prudent approach to the climate issue must recognize that there is not enough information to justify harming economies and forcing the world's population to endure unwarranted lifestyle changes by dramatically reducing the use of energy now.

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